

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-5. (Canceled)

6. (Previously presented) The method according to claim 23, wherein the adenylyl cyclase is adenylyl cyclase II, adenylyl cyclase IV or adenylyl cyclase VI.

7-8. (Canceled)

9. (Currently amended) The method according to claim 23, wherein said modulating of cellular senescence ~~comprises treating a senescent cell in said patient~~ is restored and changed a senescent cell to a young cell.

10-22. (Canceled)

23. (Currently amended) A method for modulating cellular senescence in a ~~patient in need thereof, human fibroblast cell, said method comprising administering to the patient an effective amount of treatment to the cell in the amount from 1 to 500μM of~~

~~[[a]] an inhibitor of adenylyl cyclase to inhibit said cyclase~~

~~b) an inhibitor of protein kinase A to inhibit said kinase A,~~

~~c) an inhibitor of protein kinase C to inhibit said kinase C, or~~

~~d) an activator of Gi protein to activate said Gi protein,~~

~~wherein said effective amount modulates cellular senescence in the protein.~~

24. (Previously presented) The method according to claim 23, wherein the inhibitor of adenylyl cyclase is selected from 2',5'-dideoxyadenosine, cis-N-(2phenylcyclopentyl)azacyclotridec-1-en-2-amine and 9-(tetrahydro-2'-furyl)adenine.

25-27. (Canceled)